MAZDA AC/HL. DDD.

A.C. Mains Triple-diode Triode

RATING.

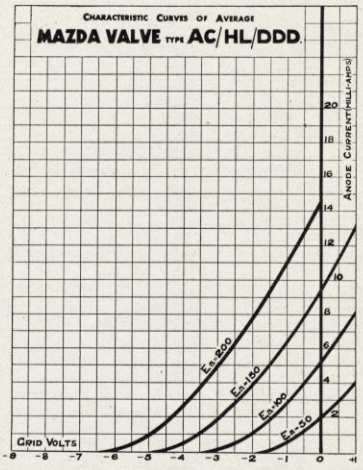
Heater Voltage	4.0
Heater Current (Amps.)	1.0

Triode Section.

Maximum Anode Voltage	250.0
Maximum Heater to Cathode Voltage... ...	150.0
*Mutual Conductance (mA/V)	2.7
*Amplification Factor	35.0
*Anode Impedance	13,000.0

* *at* $Ea=100$; $Eg=0$.

PRICE **16/-**



INTER-ELECTRODE CAPACITIES.

Grid to Anode	2.0 $\mu\mu$F.
Grid to Cathode...	3.75 $\mu\mu$F.
Anode to Cathode	6.25 $\mu\mu$F.
Diode 1 to Diode 2	0.5 $\mu\mu$F.
Diode 1 to Cathode	3.25 $\mu\mu$F.
Diode 2 to Cathode	3.75 $\mu\mu$F.
Each Diode to Grid	0.09 $\mu\mu$F.

DIMENSIONS.

Maximum overall length ...	125 m.m.
Maximum overall width ...	45 m.m.

NOTE.—In the above measurements Diode 3 is treated as being connected to cathode.

GENERAL.

The Mazda AC/HL.DDD is an indirectly heated triple diode triode valve for use in A.C. receivers. The diode section is completely screened from the triode and in operation the two sections are independent of each other except for the common cathode connection.

The insulation resistance between heater and cathode is very high and the valve is especially suitable for use in amplified A.V.C. circuits in which the triode acts as an audio frequency and D.C. amplifier.

THE EDISON SWAN ELECTRIC CO., LTD.,
Radio Division Showrooms:
155 Charing Cross Road, London, W.C.2
Showrooms in all the Principal Towns
Mazda Valves are manufactured in Great Britain for The British Thomson-Houston Co., Ltd., London and Rugby.

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MAZDA

AC/HL. DDD.

APPLICATION.

The AC/HL.DDD has been designed primarily for providing amplified automatic volume control with aural tuning, and can be used with or without inter-channel noise suppression.

Ordinary automatic volume control systems suffer from several disadvantages. One of these is that when a receiver so fitted is detuned slightly, the reduction in rectified current produced by detuning causes the overall sensitivity of the receiver to increase. This causes an over accentuation of the higher audio frequencies and distortion.

Considerable difficulty is often found in tuning a receiver of this type unless some form of visual indicator is employed.

These difficulties can be surmounted by using the AC/HL.DDD in the circuit shown in Fig. 1. The A.V.C. diode (D^2) is controlled from a circuit with double humped response and less selectivity than the one actuating the detector. This results in a reduction in sensitivity as the receiver is detuned giving greater apparent selectivity and enabling correct tuning to be obtained aurally.

Interchannel noise suppression is included in the circuit in Fig. 1 and if this is not required the detection load resistance R_1 should be returned direct to cathode.

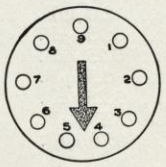
A delay voltage of about 40 volts should be provided by the difference in voltage across R_7 and that across R_8, and this voltage is applied to the detector diode in order to noise suppress the receiver between transmitting channels.

HEATER VOLTAGE.

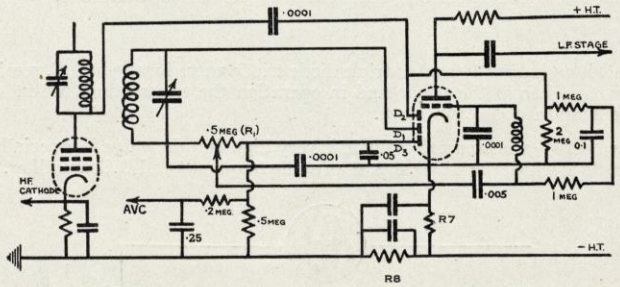
It is recommended that the voltage across the heater pins should be 4.0 volts $\pm 5\%$ under normal conditions.

CONNECTIONS TO BASE.

Pin No. 1.—Diode 2.
Pin No. 2.—Diode 3.
Pin No. 3.—Blank.
Pin Nos. 4 & 5.—Heaters.
Pin No. 6.—Cathode.



Pin No. 7.—Anode.
Pin No. 8.—Diode 1.
Pin No. 9.—Coating.
Top Cap.—Control Grid.



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